

REMARKS

This communication is in response to the Action of September 21, 2004. In that Action, claims 1 through 3, 6 through 15, 20, 22 through 25, 27 and 28 were rejected, and claims 4, 17, 21 and 26 were objected to as depending upon rejected claims but which would otherwise be allowable if rewritten in independent form.

The applicants have amended claims 1, 2, 6, 7, 9, 10, 11, 13, 22, 24 and 28, and have cancelled claims 4, 17, 21 and 26 in view of the essentials thereof having been incorporated by the above amendment in the claims upon which they ultimately depended prior to that amendment. In addition, the claims amended were amended in many instances also to clarify them. Similarly, amendments were made to the specification to correct inadvertent errors therein and for clarification.

The Examiner first objects to the drawings as not showing every feature of the invention specified in the claims on the grounds that there is only one SISO device shown in the turbo decoding iterations loop of Figure 2. However, the applicants wish to direct the attention of the Examiner to the last three lines on page 6 of the specification where soft decisions are described as being exchanged between SISO device 40 and decoder 32. This arrangement requires that decoder 32 also be a SISO device even though it also further provides the output decoded symbols. Thus, there are plural SISO devices in the turbo decoder iteration loop of Figure 2 so that the claims in question are supported by that figure. Of course, the specification also indicates that further SISO devices can be used which are not shown, but the applicants believe that the claims nowhere require more than two SISO devices in the literal wordings thereof. However, the applicants are willing to amend the specification to describe decoder 32 as a --SISO decoder-- should the Examiner believe this would clarify the situation.

The Examiner next goes on to object to claims 4, 17, 21 and 26 because of use of the phrase "alternative device states" being vague. The applicants fail to see any significant difference between the system being in one of the alternative device states available to a trellis decoder versus being in one of the possible states available in that trellis decoder. Nevertheless, the applicants have removed the term "alternative device states" from the claims remaining in the present application in favor of the phrase --possible states--.

In addition, the Examiner objected to claims 6 and 7 in connection with the wording used involving "equation" and "equations" therein. The applicants have amended the claims to remove any reference to "equation" or "equations" therein. In doing so, the applicants have introduced the phrase "information transmission medium" into the claims, and further refer to portions thereof and to such portions thereof being combined, all in accord with the description on page 15 of the specification beginning at line 19 and on page 8 beginning at line 7.

The Examiner then goes on to reject various claims under both 35 U.S.C. 102 and under 35 U.S.C. 103 relying on various references in doing so. In view of the Examiner's indication that there is allowable subject matter in the use of SISO devices with trellises having differing numbers of possible states so that such a device with fewer states could be placed within the turbo decoding iteration loop and one with more states ahead of that loop, the applicants have amended the independent claims in the present application to have a limitation of this sort set out therein. As a result, the applicants believe that the so amended independent claims distinguish over the cited references, and over those references submitted in a Supplemental Information Disclosure Statement filed subsequent to the mailing of the last Action. Thus, the claims dependent thereon then also distinguish over these references so that they are, therefore, also allowable.

In the view of the foregoing, the applicants respectfully request that the Examiner

reconsider the claims as amended, and further request the claims as amended now be allowed.

The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982.

Any inquiries regarding this application should be directed to Theodore F. Neils at (612) 339-1863.

Respectfully submitted,

KINNEY & LANGE, P.A.

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